Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (currently amended) A galvannealed steel sheet, having an excellent ~~in the~~ coating adhesion, ~~characterized in that in~~ comprising an interface between a galvannealed layer and a base steel sheet on which the galvannealed layer is formed, wherein an irregularity that has a depth of 10 nm or more at a pitch of 0.5 μm or less is present at least one per 5 μm of a length of the interface.

Claim 2. (withdrawn) A galvannealed steel sheet excellent in the coating adhesion characterized in that a surface shape of a

base steel sheet that is observed after a galvannealed layer is peeled has a developed interfacial area ratio Sdr measured by use of a high-pass filter with a cut-off wavelength of 0.5 μm of 2.0 percent or more.

Claim 3. (currently amended) The galvannealed steel sheet having an excellent ~~in the~~ coating adhesion according to claim 1 ~~characterized in that~~ , wherein the base steel sheet contains, by mass percent, 0.25 percent or less of C, 0.03 to 2.0 percent of Si and 0.005 to 0.07 percent of P, with the balance being Fe and inevitable impurities, and has a composition satisfying the following equation (1) **[[.]]** :

~~Note~~

$$[C] + [P] \leq [Si] \qquad (1)$$

~~Here~~ wherein, [C], [P] and [Si], respectively, mean the contents **[[(]]** in mass percent **[[)]]** of C, P and Si in the base steel sheet.

Claim 4. (currently amended) The galvannealed steel sheet having an excellent ~~in the~~ coating adhesion according to claim 3 ~~characterized in that~~ , wherein in a stage immediately before a coating layer is adhered to the base steel sheet, in order that

Si contained in the base steel sheet is not selectively oxidized on a surface, the base steel sheet is heat treated before the coating layer is adhered.

Claim 5. (currently amended) The galvannealed steel sheet having an excellent ~~in the~~ coating adhesion according to claim 3 ~~characterized in that in~~ , which further comprises an oxide of silicon being contained in a base steel ~~immediate~~ sheet immediately below the interface ~~an oxide of silicon is contained~~.

Claim 6. (currently amended) The galvannealed steel sheet having an excellent ~~in the~~ coating adhesion according to claim 3 ~~characterized in that~~ , wherein the base steel sheet has a composition that further ~~includes~~ comprises, by mass percent, 5 percent or less of Mn, 0.01 percent or less of S and 0.08 percent or less of Al.

Claim 7. (currently amended) The galvannealed steel sheet having an excellent ~~in the~~ coating adhesion according to claim 3 ~~characterized in that~~ , wherein the base steel sheet has a composition that further ~~includes~~ comprises at least one ~~kind~~ metal selected from the group consisting of 0.2 percent or less

of Ti, 0.2 percent or less of Nb and 0.2 percent or less of V, by mass percent.

Claim 8. (withdrawn - currently amended) A method of manufacturing a galvannealed steel sheet having an excellent ~~in the~~ coating adhesion ~~characterized in that~~ comprising a base steel sheet that contains, by mass percent, 0.25 percent or less of C, 0.03 to 2.0 percent of Si and 0.005 to 0.07 percent of P, with the balance being Fe and inevitable impurities, and has a composition satisfying the following equation (1) [[is]] , said base steel sheet being heat treated so that Si in the steel is not selectively surface oxidized, followed by cooling to a coating temperature in an atmosphere having an oxygen concentration of 0.005 volume percent or less, ~~further~~ followed by dipping the base steel sheet in a molten zinc coating bath to form a coating layer, ~~still further~~ followed by heating at a temperature rise speed of 20 degree centigrade/s or more to a temperature range of 460 to 600 ~~degree~~ degrees centigrade and holding in the heating temperature range to apply a galvannealing process of the coating layer[[.]] ,

~~Note~~

$$[C] + [P] \leq [Si] \qquad (1)$$

~~Here~~ wherein, [C], [P] and [Si], respectively, mean the contents [[(]] in mass percent [[)]] of C, P and Si in the base steel sheet.

Claim 9. (withdrawn - currently amended) The method of manufacturing a galvannealed steel sheet having an excellent ~~in the~~ coating adhesion according to claim 8 ~~characterized in that~~ , wherein the base steel sheet has a composition that further ~~includes~~ comprises, by mass percent, 5 percent or less of Mn, 0.01 percent or less of S and 0.08 percent or less of Al.

Claim 10. (withdrawn - currently amended) The method of manufacturing a galvannealed steel sheet having an excellent ~~in the~~ coating adhesion according to claim 8 ~~characterized in that~~ , wherein the base steel sheet has a composition that further ~~includes~~ comprises at least one ~~kind~~ metal selected from the group consisting of 0.2 percent or less of Ti, 0.2 percent or less of Nb and 0.2 percent or less of V, by mass percent, and the temperature rise speed and a content of Si in the base steel sheet satisfy the following equation (2)[[.]] :

~~Note~~

$$ST \geq 3.25/[Si] \qquad (2)$$

~~Here~~ wherein , in the equation (2), ST designates a temperature rise speed [[(]] in degree centigrade/s [[)]] and [Si] designates a content [[(]] in mass percent [[)]] of Si in the steel sheet.

Claim 11. (withdrawn - currently amended) The galvannealed steel sheet having an excellent ~~in the~~ coating adhesion according to claim 2 ~~characterized in that~~ , wherein the base steel sheet contains, by mass percent, 0.25 percent or less of C, 0.03 to 2.0 percent of Si and 0.005 to 0.07 percent of P and has a composition satisfying the following equation (1) [[.]] :

~~Note~~

$$[C] + [P] \leq [Si] \qquad (1)$$

~~Here~~ wherein, [C], [P] and [Si], respectively, mean the contents [[(]] in mass percent [[)]] of C, P and Si in the base steel sheet.

Claim 12. (withdrawn - currently amended) The galvannealed steel sheet having an excellent ~~in the~~ coating adhesion according to claim 11 ~~characterized in that~~ , wherein in a stage immediately before a coating layer is adhered to the base steel sheet, in order that Si contained in the base steel sheet is not

selectively oxidized on a surface, the base steel sheet is heat treated before the coating layer is adhered.

Claim 13. (withdrawn - currently amended) The galvannealed steel sheet having an excellent ~~in the~~ coating adhesion according to claim 11 ~~characterized in that~~ , which further comprises an oxide of silicon being contained in a base steel ~~immediate~~ sheet immediately below the interface ~~an oxide of silicon is contained~~.

Claim 14. (withdrawn - currently amended) The galvannealed steel sheet having an excellent ~~in the~~ coating adhesion according to claim 11 ~~characterized in that~~ , wherein the base steel sheet has a composition that further ~~includes~~ comprises, by mass percent, 5 percent or less of Mn, 0.01 percent or less of S and 0.08 percent or less of Al.

Claim 15. (withdrawn - currently amended) The galvannealed steel sheet having an excellent ~~in the~~ coating adhesion according to claim 11 ~~characterized in that~~ , wherein the base steel sheet has a composition that further ~~includes~~ comprises at least one ~~kind~~ metal selected from the group consisting of 0.2 percent or

less of Ti, 0.2 percent or less of Nb and 0.2 percent or less of V, by mass percent.

Claim 16. (withdrawn - currently amended) The method of manufacturing a galvannealed steel sheet having an excellent ~~in the~~ coating adhesion according to claim 9 ~~characterized in that~~ , wherein the base steel sheet has a composition that further ~~includes~~ comprises at least one ~~kind~~ metal selected from the group consisting of 0.2 percent or less of Ti, 0.2 percent or less of Nb and 0.2 percent or less of V, by mass percent and the temperature rise speed and a content of Si in the base steel sheet satisfy the following equation (2)[[.]] :

~~Note~~

$$ST \geq 3.25/[Si] \qquad (2)$$

~~Here~~ wherein, in the equation (2), ST designates a temperature rise speed [[()]] in degree centigrade/s [[)]] and [Si] designates a content [[()]] in mass percent [[)]] of Si in the steel sheet.

Claim 17. (new) The galvannealed steel sheet having an excellent coating adhesion according to claim 7, wherein Ti, Nb, V and P satisfy the following equation: [Ti] + [Nb] + [V] $\geq$ [P], wherein

[Ti], [Nb], [V] and [P] are the amounts of Ti, Nb, V and P, respectively, in mass percent.

Claim 18. (new) The galvannealed steel sheet having an excellent coating adhesion according to claim 3, wherein the base steel sheet has a composition which further comprises at least one element selected from the group consisting of 0.5 mass % or less Cr, 1.0 mass % or less Mo, 0.5 mass % or less Cu, 0.5 mass % or less Ni, 0.01 mass % or less Ca, 0.003 mass % or less B and 0.05 mass % or less Sb.